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Low-volume high-density cage culture technology is developing in Uganda

A Synoptic View of FAO's African Aquaculture Programme: New Approaches for New Investors

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Aquaculture is considered by most as an innovation in the Africa Region. Whilst there have been traditional aquacultural systems including fish aggregating and concentrating methods, the raising of aquatic crops is most often seen as a new practice introduced some four to five decades ago for increased nutrition. This nutritional aim was targeting both the family and the worker; in the latter case, those in authority seeking cost-effective ways to improve nutrition to improve labour output.

The improved nutritional goal has been integral to the sub-sector since these early days. As the innovation became more widely spread and promoted by more diverse institutions, the goal expanded to include improved income since it was foreseen that part of the harvest would be sold; generally small quantities sold or bartered to neighbours on the pond bank.

The first systems were nearly universally earthen ponds, usually raising any of a variety of tilapias, but also culturing other local (e.g. *Clarias*, *Heterotis*, etc.) or introduced (e.g. Chinese carps) fishes. Suggested management practices varied, but most often were low-input involving seed and nutrients that were available on-farm, in the community or the general locale.

By the 1970s, nearly every country in sub-Saharan Africa had tried some form of aquaculture. These efforts were frequently donor-driven and donor supported, involving a medley of national agencies as the most appropriate "institutional home" of aquaculture remained elusive.

The aquaculture bubble burst by the late 1990s when scepticism and disillusionment replaced over-enthusiastic and unrealistic expectations: in spite of millions of dollars spent, aquaculturally, Africa remained the lowest producing region of the world.

NEW REALITIES

In many ways, as seen by the extracts from the 1975 FAO aquaculture workshop¹, the sub-sector was confronted by a perceived conundrum; what type of aquaculture was to be the object of development efforts? Should aquaculture be pro-poor or seen as an industry? Should aquaculture be a public-dependant subsidised activity or a private sector venture? What realistically could aquaculture do and how could this potential be tapped?

What was clear was that aquaculture, in whatever form, needed to have proven technical feasibility

and economic viability. This demonstration has been a long time coming but has only realistically arrived.

With the New Millennium, the Africa Region found itself with tens of thousands of family, or farm ponds scattered across the hinterland. These, the results of decades of effort, did contribute to better resource use, risk avoidance, diversification and even, in the best cases, improved nutrition. But they did little at all to contribute to overall food production, economic growth and employment. Nevertheless, they exist.

Thus, one of the new realities is that most national programmes will be bi-modal with a large number of farm ponds that make several valuable contributions but also have limitations which must be acknowledged. Most operators of farm ponds will not metamorphose into entrepreneurs with aqua-businesses and another of the new realities is that it is through a solid aqua-business establishment that the goals of increased food production, economic growth and employment through aquaculture will be reached.

As was recognised in 1975, before the footings for aqua-businesses could be established, demonstrations of

technical feasibility and economic viability were required. Although initially these demonstrations arose due to individual entrepreneurship in response to rising fish prices and improving technologies, and were not part of national programmes to promote aquaculture, the presence of profitable aqua-businesses in Zimbabwe, Uganda, Nigeria, Zambia, Ghana, Kenya, Madagascar and elsewhere served as real-life models of what could be done. Pioneering private investors diverted entrenched trends and showed that aquaculture can be a profitable enterprise at micro-, small-, medium, and large-scales.



Simple static-water cement-block tanks in Nigeria produce high yields

By 2004, the potential of a private-sector-led sub-sector became apparent and decision-makers began to revise their strategies for their national programmes². It was clear that the commercial producers, especially the small- and medium-scale investors, would be the motors for the expansion of the sub-sector and the contributors to the national good.

In the aggregate, the lessons from this evolution have been encapsulated in SPADA (see pages 33-35 of this issue of FAN 40)– the Special Programme for Aquaculture Development in Africa with the goal *to provide assistance to African countries to enhance aquaculture production, to facilitate producers' access to financial services and markets, to boost investment in aquaculture as well as to exchange knowledge*. SPADA represents a new approach to the sub-sector's development based on a series of recent analyses including the aforementioned Limbé Workshop and, among others, Guiding Principles for Promoting Aquaculture in Africa – benchmarks for sustainable development³.

WHAT'S COMING

There is a Central African proverb that says: MAN WE I GOW MUTIKA, NA I SABI HAMOS MUBUNGA KOS or, people who

live in a fishing village know the price of fish. When one actually witnesses something they take serious account of it – i.e., the demonstrations of profitable aquaculture are in process and people are taking note. The momentum is growing as is the investment. It is incumbent on those promoting and assisting the development to take the lead before they are pushed aside by this new wave of enthusiasm; hopefully a wave built on realities and not over-expectations.

New systems are coming on line; cages, concrete tanks, raceways and recirculating systems. New levels of yield are being achieved as new technologies are applied. Better quality seed will soon be available whilst better feeds are entering some markets and will soon reach others.

A new level of aquaculture activity is coming.

Governments must determine how best to service the bi-modal sub-sector, how to encourage investment whilst ensuring it is responsible and sustainable? How to address the socio-cultural and ecological complexities of the innovations, including the critical issues of access rights, whilst facilitating significantly increased investment? How to develop

effective information, input and market channels?

One important way of addressing these and other issues will be through improved communications and networking. At the 14th CIFA session in 2006, the Committee endorsed the establishment of an *ad hoc* Working Group which will lay the groundwork for establishing an African NACA termed ANAF - the Aquaculture Network for Africa (ANAF, see pages 29, 34 of this issue of FAN 40). When operational (first operations foreseen for 2009), ANAF should be able to provide much needed skills, technology and information exchange for the future development of aquaculture in the Region.

¹ FAO Report of Aquaculture Planning in Africa, Report of the First Regional Workshop in Aquaculture, 2-17 July 1975

² Limbé Declaration: A consensus statement by delegates to the FAO/WorldFish Workshop on Small-scale Aquaculture, 23-26 March 2004, Limbé, Cameroon..

³ CIFA Occasional Paper No. 28, 2006, FAO, Accra, Ghana.